

**MINUTES OF THE MEETING  
OF THE  
ASSEMBLY COMMITTEE ON NATURAL RESOURCES,  
AGRICULTURE, AND MINING**

**Seventy-Ninth Session  
March 14, 2017**

The Committee on Natural Resources, Agriculture, and Mining was called to order by Chair Heidi Swank at 1:34 p.m. on Tuesday, March 14, 2017, in Room 3138 of the Legislative Building, 401 South Carson Street, Carson City, Nevada. The meeting was videoconferenced to Room 4406 of the Grant Sawyer State Office Building, 555 East Washington Avenue, Las Vegas, Nevada. Copies of the minutes, including the Agenda ([Exhibit A](#)), the Attendance Roster ([Exhibit B](#)), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at [www.leg.state.nv.us/App/NELIS/REL/79th2017](http://www.leg.state.nv.us/App/NELIS/REL/79th2017).

**COMMITTEE MEMBERS PRESENT:**

Assemblywoman Heidi Swank, Chair  
Assemblywoman Lesley E. Cohen, Vice Chair  
Assemblyman Chris Brooks  
Assemblywoman Maggie Carlton  
Assemblyman John Ellison  
Assemblywoman Sandra Jauregui  
Assemblywoman Lisa Krasner  
Assemblywoman Robin L. Titus  
Assemblyman Justin Watkins  
Assemblyman Jim Wheeler  
Assemblyman Steve Yeager

**COMMITTEE MEMBERS ABSENT:**

None

**GUEST LEGISLATORS PRESENT:**

Assemblyman James Oscarson, Assembly District No. 36  
Senator Pete Goicoechea, Senate District No. 19



**STAFF MEMBERS PRESENT:**

Susan E. Scholley, Committee Policy Analyst  
Nancy Davis, Committee Secretary  
Cheryl Williams, Committee Assistant

**OTHERS PRESENT:**

Tony Wasley, Director, Nevada Department of Wildlife  
Howard Watts, representing Great Basin Water Network  
Kenny Bent, Private Citizen, Las Vegas, Nevada  
Cindy Lake, Private Citizen, Las Vegas, Nevada  
Jason King, State Engineer and Administrator, Office of the State Engineer,  
Division of Water Resources, State Department of Conservation and Natural  
Resources  
Omar Saucedo, representing Southern Nevada Water Authority  
Kyle Davis, representing Nevada Conservation League and the Coalition for Nevada's  
Wildlife  
John Sande, IV, representing Nevada Bighorns Unlimited  
Jeremy Drew, Commissioner, Nevada Board of Wildlife Commissioners  
Steve K. Walker, representing Eureka County  
Don Alt, County Commissioner, Lyon County Board of Commissioners  
David Rigdon, representing Taggart & Taggart, Ltd.  
Doug Busselman, Executive Vice President, Nevada Farm Bureau Federation

**Chair Swank:**

[Roll was called and standard rules of the Committee were reviewed.] We have an introduction of a bill draft request (BDR) this afternoon.

**BDR 48-735** - Revises provisions relating to water. (Later introduced as [Assembly Bill 298](#).)

Bill Draft Request 48-735 was assigned to the Assembly Committee on Natural Resources, Agriculture, and Mining for Committee introduction. This measure is an act relating to water; defining "perennial yield;" authorizing, under certain circumstances, the State Engineer to consider the approval of a monitoring, management and mitigation plan; setting forth certain requirements for a monitoring, management and mitigation plan; requiring the State Engineer to provide notice of a proposed monitoring, management and mitigation plan; authorizing the State Engineer to approve an amendment to a monitoring, management and mitigation plan; defining "environmentally sound" and "unappropriated water" for certain purposes; providing penalties; and providing other matters properly relating thereto.

We will need to vote on this today. [Standard rules for BDR introductions were reviewed.] I will entertain a motion.

ASSEMBLYWOMAN COHEN MOVED TO INTRODUCE BILL DRAFT REQUEST 48-735.

ASSEMBLYMAN WHEELER SECONDED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

We will now move to Assembly Bill 138.

**Assembly Bill 138: Authorizes the de minimus collection of precipitation under certain circumstances. (BDR 48-445)**

**Assemblywoman Maggie Carlton, Assembly District No. 14:**

I had the privilege and pleasure of serving on the Interim Legislative Commission's Subcommittee to Study Water that did a lot of work all around the state on a number of different issues. This is one of those issues that was brought forward, and with the limited number of bill drafts that the Committee had, I volunteered to take one of the bill drafts that I had available and use it for this issue.

The bill is quite simple. I am always afraid to carry a bill that is only about 1 1/2 pages long because you never know what will happen. With that, I believe the digest explains everything very well. Basically, this bill attempts to address the de minimus collection of precipitation. When I was growing up in the Midwest, everybody had rain barrels next to their houses. They were on all four corners, next to the garage, and next to the shed. That was the water that was used for the gardens and animals. Some folks came to us saying they would like to use those same provisions.

In the Midwest, I did not know what a guzzler was. I think I know what it is now, but I would never claim to be able to explain one to you. The guzzler is added into the bill because a unique aspect of Nevada is that we use guzzlers for wildlife.

This bill is totally permissive and will allow people to use rainwater. There will be a proposed amendment on ensuring that people understand this is not potable water and is not for human consumption ([Exhibit C](#)).

**Assemblywoman Cohen:**

I understand the definition of domestic use in *Nevada Revised Statutes* (NRS) 534.013. Is that the only reason we are not allowing this to be for multifamily dwellings?

**Assemblywoman Carlton:**

First question out of the box stumped the sponsor. I do not believe that was discussed in the subcommittee. We did not talk about multifamily use. It was not an issue.

**Assemblywoman Cohen:**

I would like to see this turn into something where possibly an apartment complex could use the water for a community garden, or even a business complex.

**Assemblywoman Carlton:**

I think this is the first small step forward. We would probably need to figure out how this is going to work before we try to bite off more than we can handle. I have a friend in Michigan that hand-paints rain barrels. I told her as soon as we were ready, I would send her an order. I honestly do not remember any discussion around multifamily uses. It was more about folks on larger properties wanting to catch the water for domestic use and for guzzlers.

**Assemblyman Wheeler:**

This bill makes a lot of sense to me, especially given the evaporation of water and being able to use it before it evaporates. Is this only during times of declared emergency, or is this at any time? In reading the bill, I think it says any time, but I keep hearing it is only during drought periods.

**Assemblywoman Carlton:**

I had not heard that discussion. I was under the premise that this would be at any time. I will stand corrected if need be, but I believe that the water that comes off a roof, that just percolates into the soil, can be used for gardens.

**Assemblyman Wheeler:**

Do you have any idea how much water is lost through evaporation, does not percolate to recharge, and could actually be saved by this bill? It is just common sense to me that a lot can be saved and used instead of evaporating.

**Assemblywoman Carlton:**

Being as I am not a scientist, I would not be able to answer that question.

**Chair Swank:**

I would be interested to know how much water one collects this way.

**Assemblywoman Carlton:**

I do know, from when I was a kid, we would fill up a couple of rain barrels pretty darn quickly. Being the eldest, I had the unfortunate job of cleaning out the screens.

**Assemblywoman Titus:**

You would have to do the math to figure out the volume of water you collect based on the surface area of the roof, the collecting system, and how much rain came down. That would be a math question. I am curious about the amendment ([Exhibit C](#)). Is this a friendly amendment? If so, I have a question regarding the 20,000 gallons for the State Department of Wildlife (NDOW).

**Assemblywoman Carlton:**

The person who is proposing the amendment would have to discuss and answer those questions for you. I would not want to speak on someone else's behalf, but it is a friendly amendment.

**Assemblywoman Titus:**

Since we are hearing it now as a potential friendly amendment, I would like to ask the NDOW if 20,000 gallons would be enough. I know there are different types of guzzlers; there are sheep guzzlers, chukar guzzlers, et cetera, and they have different volumes and different sizes. Is that a number that was worked out with the NDOW?

**Tony Wasley, Director, Nevada Department of Wildlife:**

The 20,000 gallons is more than adequate. Presently, we have 1,725 guzzlers around the state. The largest capacity that we currently have is approximately 16,500 gallons. We feel that 20,000 gallons would be more than adequate to accommodate our needs in providing water for wildlife.

**Assemblywoman Titus:**

Is there a fail-safe then? They can only hold so many gallons based on the architecture and construction. What would happen if you have a big rainstorm and suddenly you have more water in the guzzler than allowed?

**Tony Wasley:**

Most of the guzzlers have a series of tanks that have a limited capacity, beyond which they overflow onto the ground. A guzzler with a capacity of 16,500 gallons is limited at 16,500 gallons. One other clarification to the proposed amendment, it does list the Nevada Division of Wildlife, but we are the Nevada Department of Wildlife.

**Assemblywoman Titus:**

I think this is a great idea. I have often asked why we are not doing this.

**Assemblyman Watkins:**

I cannot find anywhere in the NRS where we define de minimus. I have no idea what de minimus means in regard to storage of water.

**Chair Swank:**

It means small quantities. It means that you cannot collect large quantities of water.

**Assemblyman Watkins:**

I understand what de minimus means as a legal term. I do not understand what it means in the context of water storage. Is 20,000 gallons de minimus as far as water storage goes? I am wondering if we have a general understanding of what de minimus would be in this realm.

**Assemblywoman Carlton:**

I have no answer for that.

**Susan E. Scholley, Committee Policy Analyst:**

Our Committee Counsel, Randy Stephenson, advises me that *Black's Law Dictionary* defines it as a trifling amount.

**Chair Swank:**

We will now move on to those wishing to testify in support of A.B. 138.

**Howard Watts, representing Great Basin Water Network:**

We are in support of this bill. It is past time. I am sure many folks reading this wonder why this is not authorized already. It is time to take a step in that direction. We accept the bill, with the proposed amendment. We are also open to expanding it past single-family use. I would like to provide a couple of additional points. I found some statistics from Arizona that say one inch of rain will collect 600 gallons of water from a 1,000-square-foot roof. As was stated, it depends on the amount of rain and the size of the roof. This will give you a sense of how much water would be collected. In regard to de minimus in water, we are often talking about acre-feet of water. Here in Nevada, capturing a few thousand gallons is basically insignificant. What we want to prevent from happening is building a large-scale collection facility that would essentially divert water from entering into a groundwater basin and recharging that basin.

**Kenny Bent, Private Citizen, Las Vegas, Nevada:**

I am strongly in support of this bill. I think it is a good idea. I think some of the concern about how much rainwater is lost through evaporation is largely dependent on the surface of the ground. In the rural areas, during a light rainstorm, very little water makes it to the aquifer. I think this bill is definitely heading in the right direction as far as conservation of water goes. I would like to request a friendly amendment to consider. In section 1, line 5, change the wording from "single-family dwelling" to "domestic dwelling and opportunistic outbuildings." This just gives a little more capacity of water to catch and not be lost to evaporation. Outbuildings would be a garage, shop, or barn. I do like the no-nonsense approach to conservation that this bill is offering. [A written statement was also provided ([Exhibit D](#)).]

**Cindy Lake, Private Citizen, Las Vegas, Nevada:**

I would just like to mention that I am in favor of Kenny Bent's proposed amendment.

**Jason King, State Engineer and Administrator, Office of the State Engineer, Division of Water Resources, State Department of Conservation and Natural Resources:**

I am here in support of A.B. 138. I have some prepared remarks that I would like to read into the record and then answer some of the questions that have been asked. The idea for the concepts found in A.B. 138 came out of both the Governor's Nevada Drought Forum and the Legislative Commission's Subcommittee to Study Water. Nevada water law provides that all water may be appropriated for beneficial use as provided by statute, and not otherwise. This

left open the question of whether the collection of water in a rain barrel for personal use was legal or not. It was agreed to in both the Drought Forum and the Subcommittee to Study Water that small water collection systems should be allowed and provided for in the water law. The same concept is found in the Office of the State Engineer's Office bill, Senate Bill 74, which was presented last week in the Senate Committee on Natural Resources. Testimony at that hearing supported the capture of precipitation, but it was also suggested that the water could only be used for nonpotable domestic uses. You heard Assemblywoman Carlton discuss that also.

A guzzler is an artificial basin that collects or is designed and constructed to collect precipitation specifically for use by any wildlife. They have been in use throughout this state for many years. In a letter issued by the State Engineer in 1982, the use of guzzlers was exempted from the requirement for the water right permit, and there are approximately 1725 guzzlers in existence statewide. Guzzlers are also addressed in Senate Bill 74, and testimony presented at that hearing has resulted in an amendment to our original language limiting the capacity of a guzzler to 20,000 gallons.

It is our hope that both A.B. 138 and S.B. 74 pass and that a reconciliation of the language can then be finalized and put into statute.

**Assemblywoman Cohen:**

Section 4 allows you arrest authority. Has your office ever made any arrests?

**Jason King:**

No.

**Assemblywoman Cohen:**

Because you do have that authority, what do you consider de minimus?

**Jason King:**

I too, do not have a finite answer to what that is, other than it is a small amount. Which brings up your earlier question about multifamily dwellings. I would tell you that when we start getting into the discussion about capturing precipitation, many times the discussion goes to an extreme. Speculation starts about what if you capture all the rainwater on all the malls and buildings everywhere. Now you are truly having potential impacts on recharged groundwater systems where prior water right holders already have right to that water. I look at this as though we are walking before we are running. We start off with a single-family dwelling. I am not opposed to a multifamily unit, but again, where do you stop and put sideboards on it?

Assemblyman Wheeler asked if the allowable collection of rainwater was anytime or does it have to be in a declared drought. The answer is, anytime you can capture rain off your roof, you should be able to. Assemblyman Wheeler also asked how much water is evaporating. I do not have that data, I can tell you that it is a very significant amount. If we can capture it and use it beneficially, we need to do that.

**Omar Saucedo, representing Southern Nevada Water Authority:**

I am here today in support of A.B. 138. First, I want to thank the bill sponsor for all her work during the interim and for bringing forth this important piece of legislation.

We have provided an amendment ([Exhibit C](#)) that we have shared with the bill's sponsor and the State Engineer's Office. I would like to walk through that amendment at this time.

In section 1, as it relates to residential collection of rainwater and guzzlers, specifically refers to the term "domestic use," defined in *Nevada Revised Statutes* (NRS) 534.013, which says: "... 'Domestic use' or 'domestic purposes' extends to culinary and household purposes . . . ." There is a potential question as to whether this body, as a matter of public policy, wants to allow for rainwater collection for culinary purposes indoors. We have had a discussion about amending that language and it was determined that the language to be used was "non-potable use."

Also, there was a question of whether 20,000 gallons for guzzlers was enough. That was another question that we vetted. It was determined that 20,000 gallons was the appropriate capacity for guzzlers in this state. Referring to the clarification of the Nevada "Division" of Wildlife, we are more than happy to clarify that as the Nevada "Department" of Wildlife, and we apologize for the error. For those reasons and other reasons that were stated here today, we are in support of A.B. 138.

**Kyle Davis, representing Nevada Conservation League and the Coalition for Nevada's Wildlife:**

We are here in support of A.B. 138 as it reads. With regard to the amendment that has been submitted, I am comfortable with the number of 20,000 gallons, but I do wonder whether this language is necessary. I think the bill reads perfectly fine the way it is. I do appreciate that they consulted with NDOW to ensure we had that number right, if indeed you do move forward with that amendment. I also appreciate the change to "non-potable." I think people want to have the ability to collect rainwater, which is a good water conservation measure and use that water for non-potable uses. This bill is a long time coming in terms of allowing individuals to conserve water on their own residences.

**Assemblywoman Titus:**

I understand the reason for bringing this bill forward, and there was definitely a question on whether you could collect rainwater. We have had guzzlers out there a long time. I am curious about the guzzler piece of this bill. Was there some indication that guzzlers may not be legal without this? How have we been doing it for decades?

**Jason King:**

The short answer is yes, there has been some concern whether guzzlers were allowed to exist without the benefit of a water right. In my testimony, I cited a letter that then State Engineer Peter G. Morros issued in 1982. He cited a statutory provision requiring that someone who makes application to appropriate water from a spring must leave enough water at that spring to allow for the watering of the wildlife that would customarily be watering there.



Mr. Morros used that provision in the statute to make the link that guzzlers should be legal. This is a way to once and for all put this in statute and acknowledge that it is in our best interest and should be legal.

**John Sande, IV, representing Nevada Bighorns Unlimited:**

I want to thank the sponsor for bringing this needed legislation, and I appreciate the clarity it will bring to the law, especially in regards to guzzlers. We think this has always been a legal tradition to have these in our state for wildlife. This gives us the comfort of knowing that it is legal.

**Jeremy Drew, Commissioner, Nevada Board of Wildlife Commissioners:**

I would like to express the Commission's support for A.B. 138. Again, our appreciation to the bill's sponsor for bringing forward this important clarification that wildlife guzzlers do not need a water right. While we fully support the initial language, I have reviewed the proposed amendment from Southern Nevada Water Authority ([Exhibit C](#)), and it is certainly something we can live with. It did raise one question at our Board of Wildlife Commissioners meeting. That is, what is the mechanism for determining a potential conflict with existing water rights, if a water right is not required for the guzzler?

**Chair Swank:**

Is there anyone else in support? Seeing no one, I will move on to anyone who would like to speak in opposition to A.B. 138. [There was no one.] Is there anyone in neutral?

**Steve K. Walker, representing Eureka County:**

With the amendment that came from Southern Nevada Water Authority ([Exhibit C](#)), which was worked out with S.B. 74, Eureka County believes that "conflict with existing rights" wording was an important addition. The reason we are neutral is that we thought there is one other issue that may need to be addressed. That is that the guzzler be used on the same parcel on which it was collected and stored.

**Tony Wasley:**

I would like to provide a little background on de minimus, and how much water actually exists, or the collection capacity that exists. First, I, too, would like to thank and applaud Assemblywoman Carlton. We certainly appreciate the formal recognition of the previous State Engineer's ruling. I would like to provide a little clarification on numbers. As I stated earlier, there are 1,725 wildlife guzzlers spread across the entire state, with a total tank capacity of approximately 8.6 acre-feet of water. The total guzzler holding capacity would be equivalent to the annual consumption of approximately 17 single-family homes in the Reno area, or just two acres of agricultural crop production at approximately 4 acre-feet per acre. The 1,725 guzzlers statewide are composed of 1,292 small game guzzlers for use by smaller species such as songbirds, sage grouse, rabbits, chukar, lizards, et cetera. There are 433 large game guzzlers for use by all wildlife, including big horn sheep, deer, elk, antelope, et cetera. I hope that provides some perspective on the de minimus aspects of water collection for wildlife in guzzlers.

**Chair Swank:**

Assemblywoman Carlton, do you have some closing remarks?

**Assemblywoman Carlton:**

Thank you for scheduling this bill and for the Committee's consideration. I will be happy to speak with those who are interested in this. I think this is a good first step, and we will have discussions on expanding it sometime in the future.

**Chair Swank:**

With that, I will close the hearing on A.B. 138. [Additional written testimony was received in support of A.B. 138 ([Exhibit E](#)).] I will now open the hearing on Assembly Bill 209.

**Assembly Bill 209: Revises provisions governing the forfeiture of water rights. (BDR 48-308)**

**Assemblyman James Oscarson, Assembly District No. 36:**

I am here to present Assembly Bill 209 for your consideration. The purpose of this bill is very simply to address the "use it or lose it" doctrine that is currently in statute.

I have seen it so many times—the process that is in place encourages water right owners to overuse available water resources in order to prove need of future water allocations. This is creating an environment of misuse in places where water is already scarce. We have to ask ourselves, "water" we doing?

This bill addresses that problem by removing the requirement that water right owners must prove their water rights in time of drought or if they are in an overappropriated or overallocated basin.

The main drive for A.B. 209 comes from discussions and recommendations at the meetings of the Legislative Commission's Subcommittee to Study Water during the 2016-2017 interim. I was privileged to be a member of the interim subcommittee, along with Assemblywoman Carlton and Senators Ford, Goicoechea, and Hardy.

At several meetings, it was discussed that the Office of the State Engineer should have the ability to suspend forfeiture of water rights during times of drought in severely overappropriated basins or in designated critical management areas. Under the "use it or lose it" doctrine, a holder of an underground water right forfeits the right if he fails to beneficially use the water for five successive years. Among other things, this rule can provide a disincentive for the conservation of water. Under the current law, the water right holder can request an extension to work the forfeiture.

I also have a proposed amendment ([Exhibit F](#)) that clarifies that the State Engineer may extend the time necessary to work a forfeiture in a basin where withdrawals consistently exceed the perennial yield, or in a basin that has been designated as a critical management area. It also allows the State Engineer to consider whether the basin is within a county that

has been officially designated as being in a drought. This amendment is consistent with the recommendations of the Governor's Nevada Drought Forum and with the provisions of Senate Bill 74, which is being sponsored by the Senate Committee on Natural Resources on behalf of the Division of Water Resources.

I will now walk the Committee through the provisions of the bill and my proposed amendment. I will try my best to keep the discussion from being "too dry."

Subsection 2 of the bill provides the factors to be considered by the State Engineer in determining whether to grant or deny a request for an extension of time to work a forfeiture. The proposed amendment provides that the State Engineer shall include consideration of whether the water right is located in a basin—within a county that has been officially designated as being in a drought—and whether the water right holder has demonstrated efforts to conserve water, which has resulted in a reduction in water use.

Subsection 3 of the bill provides that the State Engineer may extend the time necessary to work a forfeiture if: (a) The request is made before the expiration of the time necessary to work a forfeiture; and (b) The right is located in a basin: where withdrawals of groundwater consistently exceed the perennial yield of the basin; or that has been designated as a critical management area by the State Engineer. This is also included in subsection 2 of the bill.

Subsection 3 also provides that any number of extensions may be granted to a water right holder under these provisions, and extensions may exceed one year.

We have to be good stewards of our resources and create an environment that incentivizes our citizens to conserve water rather than waste it. To quote the musical group TLC, "Don't go chasing waterfalls." I urge your support of A.B. 209.

Chair Swank, this concludes my remarks. I hope my description of the bill was not too "watered down," but of course, I did not want us to get "over our heads."

It is very interesting for me to see this from a personal perspective. I will drive by a field that is being watered or flood-irrigated, thinking there is a new crop coming in. The water will run for several days, full-force. I come back by five or six weeks later, and it is just dry. The irrigation was to simply prove out water rights. When you have 60 percent evaporation rate of water that we are dumping on the ground, it is very frustrating to those folks who are challenged and having to drill their wells deeper and do things to be able to continue to utilize water when we are wasting it in that manner.

Again, I am grateful for the Senator being here also. Hopefully he will get me out of a little trouble. Thank you.

**Senator Pete Goicoechea, Senate District No. 19:**

Clearly, this bill is going to be a tool to the State Engineer that will allow him to not require the proof of beneficial use if, in fact, the water right holder can show that he has demonstrated he is trying to conserve water that is in either a critical management area and/or severely overappropriated. This is not going to be something that you can go all over the state with. It is going to have to be in those areas that are suffering from the drought, and is in a critical management area or severely overappropriated. This is a tool that some water right holders could use and say, We are in a five-year drought, so I do not have to show benefit of use, therefore, you cannot forfeit my water right. Nevada's water law is prior appropriation, "use it or lose it." This is just a tool that gives the State Engineer some flexibility in those problem areas.

**Assemblyman Watkins:**

I want it on the record that I have received a number of emails urging a no vote on this because the domestic well owners believe that this is infringing on their rights through a new form of metering system. I do not see it in the bill, but I would like you to address that so we can address our constituents' concerns.

**Senator Goicoechea:**

Eventually, as we move these water bills forward, we are going to have to bring a domestic well bill forward so we can get some clarification. Right now, I think there is a lot of mistrust and misunderstanding. Clearly, this bill does nothing to impact domestic wells. There are a number of bills that do deal with domestic wells and have domestic well language in them. I think the quicker we can bring one of those forward, hear it, and see if we can put some of those issues to rest or light the fuse, the better. The bottom line is, clearly, this bill has no impact on domestic wells.

**Assemblyman Oscarson:**

I could not have said it any better. In fact, if I were a betting man—if this is approved and moved through—I suspect this bill may help alleviate domestic well owners' concerns; we are not pumping water on the ground for no reason, but keeping the water in the aquifer where it belongs, until it is needed.

**Assemblywoman Cohen:**

Will you go further into the amendment regarding section 1, subsection 2, paragraph (g) about conservation efforts?

**Senator Goicoechea:**

Subsection 2(g) of the amendment states, "Whether the holder has demonstrated efforts to conserve water which have resulted in a reduction in water consumption." If water conservation is your issue, you will not be able to carry this down to a municipal user, and/or domestic wells, but we are talking about the larger water right holders; 70 percent of our water is used by agriculture, which is where you will see the most conservation.

**Assemblywoman Cohen:**

Using Assemblyman Oscarson's example where he is driving and sees someone who is clearly just using water to use water—if that person turns off the water, is that good enough? We are not expecting a farmer to get some new system in order to say he has invested a lot of money to show that he is now conserving water. We are not asking the water right holders to invest money to conserve water, correct?

**Senator Goicoechea:**

In most cases with agriculture, they use their water every year, that is their business. As we are seeing new advances in technology, we have level bubblers and drip systems. Water conservation is driven by economics. The more water you pump, the more it costs. Typically, a farmer will raise his crops and irrigate his property. Therefore, he is in complete compliance with his proof of beneficial use. In most of these cases, the people who are trying to avoid a forfeiture are people who are holding and banking water rights. They are only irrigating their lands once every five years. When the five-year time frame comes up, they pump their water so they can show on their meter reading that it is being pumped and they maintain their water right. In many cases, it is just pumped right on the ground, down the ditch, and either evaporates or flows off. It clearly makes sense to conserve it, and this bill will allow them to avoid wasting water.

**Chair Swank:**

So simple nonuse of water. If the farmer just stops using water, that is also a conservation technique, right?

**Senator Goicoechea:**

He cannot just decide not to use it. Again, he would either have to apply for an extension or get this waiver from the State Engineer. This bill facilitates that waiver so he does not have to waste the water.

**Chair Swank:**

The amendment also refers to a reduction in water consumption. I am wondering about just not using the water.

**Assemblyman Oscarson:**

That is not the intent. The intent is not to just have them stop using their water. There is not a mechanism whereby people can just stop using their water. If they have it, they have to utilize it, unless they are in certain areas that are designated by the State Engineer.

**Chair Swank:**

For clarification, in subsection 2(g)—going back to the example of someone using water just to use the water—this will not wholly stop that, because then they would have to have some use of water.

**Senator Goicoechea:**

I think that is just one of the things the State Engineer can consider when he is granting the waiver. If this person had been a good user and was clearly trying to conserve and show a reduction in the use of his water, this is one of the criteria that the State Engineer could consider in issuing an extension or waiver.

**Jason King, State Engineer and Administrator, Office of the State Engineer, Division of Water Resources, State Department of Conservation and Natural Resources:**

You have hit the nail on the head. I want to give you an example of subsection 2(g). That provision is found in *Nevada Revised Statutes* (NRS) 534.090. That is the forfeiture clause, and it deals with certificated groundwater rights only. The water right application process is this: you make an application, you get a favorable review, and it becomes a permit. Once you put that water to beneficial use, you get a certificate. It is the certificated water right that is subject to forfeiture. So, an example under subsection 2(g) is perhaps 25 years ago, Farmer Oscarson put all of his water to beneficial use through flood irrigation, an inefficient means of using his water. He had 200 acres, and he used 5 acre-feet and he got a certificate from our office for 1,000 acre-feet of water. Fast-forward 20 years, and he now wants to use pivots with low-hanging nozzles and sprays. Now, instead of using 1,000 acre-feet, he has spent a lot of money and become more efficient. He is only using 600 acre-feet. This provision is telling me that if Farmer Oscarson has not used all of his 1,000 acre-feet, our office has the allowance to toll any forfeiture on that delta between his 1,000 acre-feet and the 600 acre-feet. He has become more efficient. To these gentlemen's point, where is the incentive to become more efficient? We want some kind of incentive to become more efficient and use less water. That is one component of this bill.

The next component is, in these basins that are fully appropriated and are being pumped to the max of the perennial yield, the last thing we want are people in these basins to pump their water because they are fearful of losing their water rights to forfeiture. This provision allows them to file an extension of time with our office that says, I am in an overappropriated basin, I do not have to pump my water this year, and I am requesting an extension so that your office does not forfeit my water rights. This language allows our office to grant that extension of time. We are not forcing you to put your water to beneficial use. We are trying to balance that requirement with beneficial use, which is the cornerstone of our water law. We want people to put their water to beneficial use, but not in situations like this. This language is trying to clear up the argument.

**Chair Swank:**

So if Farmer Oscarson decides to no longer be a farmer and to use zero acre-feet of his water, is that something he can also get an extension for under subsection 2(g)?

**Jason King:**

It is, but I would tell you, it is not clear, and I do not think it is meant to be completely clear, because it is at the discretion of our office. Ultimately, there will come a time when Farmer Oscarson continues to file extensions, saying, I am not putting the water to use. At some point, we are going to deny an extension and forfeit that water right. It is going to be based

on specific circumstances associated with his farming operation and all the evidence that we would gather. This bill provides him the ability to avoid being forfeited, but at some point in time, he could lose that water right.

**Assemblyman Ellison:**

Say you have a rancher who has 1,000 acre-feet of water, and he suddenly decides to drill oil and go to irrigation pumps. Now he is using 600 acre-feet, but he had water rights for 1,000 acre-feet. He cannot show beneficial use anymore for 1,000 acre-feet. Suddenly, the irrigation pumps break and he has to go back to the old method. Now he is in trouble because he does not have enough water rights to do that job. You cannot always depend on conservation year after year. We do not want people wasting water, which has created the laws that are there now. We are forcing people to waste. What happens if the farmer decides to go from alfalfa to corn? That changes the amount of water being used.

Also, what about the large subdivisions all over the state that have acre-feet of water scattered all over for these subdivisions. They have not used their water rights in years because they have not developed the property.

Also, some of the areas you are showing as overappropriated, are done from mountaintop studies back in the 1950s.

**Jason King:**

First, I will address the discussion about proving up on 1,000 acre-feet and becoming more efficient, therefore only using 600 acre-feet. I break this discussion into two parts: one for basins that are not fully appropriated, and the other discussion for basins that are fully appropriated. Beneficial use truly is the cornerstone of our water law. It is the limit of the right. The idea is, in a dry state, you put all you can to beneficial use and that is all you get, no more. Whatever you do not put to beneficial use is left for the next person in line in priority, to make application for and put to beneficial use.

In a basin that is not fully appropriated, let us say that at one point in time, you prove up on 1,000 acre-feet. Ten years later, you change your crops and point of diversion, so now you only need 600 acre-feet. In a basin that is not fully appropriated, I would say you lose that 400 acre-feet because now all you are beneficially using is 600 acre-feet. The 400 acre-feet you have now loosened up, or left on the table, could be appropriated by the next person in line because it is not a fully appropriated basin. When we deal with a basin that is fully appropriated, we do not want anyone pumping any more water than they need. That is why the language in this bill gets to the heart of the matter in dealing with these basins that are either critical management areas or overappropriated and overpumped. This gives the water user a way to not have to pump in fear of losing his water rights. It truly depends on whether you are in a basin that is fully appropriated or not. Another simple answer would be, you are entitled to the amount you can beneficially use. If you are beneficially using much less than you used to, an argument can be made for that is all you get. I do understand the idea of the incentive to become more efficient.

**Assemblyman Ellison:**

My problem is we do not know what is going to happen next year or the year after that. We have had drought after drought. For me to ensure I can keep my water right, I am wasting it—not banking it, not saving it, and not lending it to someone else; I am not giving it to the farmer next door. I think we are encouraging people to waste water based on the existing law.

**Senator Goicoechea:**

That is why this bill deals with critical management areas and severely overappropriated basins. We do not want to get into the scenario in those open basins of people underusing and applying for an extension. That is why this bill is focused on those problem areas.

**Assemblyman Ellison:**

When you have overappropriated areas based on the amount of subdivision permits issued, but not being used, that shows that the basin is overappropriated when it might not be.

**Senator Goicoechea:**

We have wet water and we have paper water. We have paper overappropriated basins and some basins that are truly overappropriated.

**Jason King:**

About the subdivisions. This is brought up frequently—how water law deals with municipalities. At one time, I knew how many places in statute in which municipalities were treated differently than a normal water right holder. It has been recognized by the Legislature, over time, that municipalities take longer to grow their infrastructure; they are not necessarily in charge of zoning, they do not know what is going to happen with population growth. It takes them longer to get pipe in the ground to serve their customers. There has been an acknowledgement in the statute, 12 to 15 times, treating them slightly different than water right holders; allowing subdivision to hold on to their water rights longer because of who they are and what they are doing.

To your third point about perennial yields based on reconnaissance reports that the United States Geological Survey performed in the 1950s, 1960s, and I believe most of them were done in the 1970s. I would tell you that although they are old, we found them, by and large, to be very good and to be accurate. We will have an estimate of perennial yield in Pahrump Valley of anywhere between 12,000 and 20,000 acre-feet. We conduct pumpage inventories in that basin, and when we were pumping between 12,000 and 20,000 acre-feet, the water levels were staying level. They hit a static equilibrium, or close to it. When the pumpage went to 44,000 acre-feet while growing cotton in Pahrump, the water levels declined. We have many of those basins throughout the state where we have real live pump tests over time where we can see that those recon reports, for the most part, are good estimates of how much water is there. We have had some busts that have been identified, and we have updated many of those estimates over the past 20 years. We are always looking to update them with the latest and greatest science. I still believe that those old reports provide great value to us.



**Assemblywoman Cohen:**

Since the length of extensions is discretionary, will you discuss the guidelines that your office follows?

**Jason King:**

In this particular bill, we are in the section dealing with extensions of time to prevent the working of a forfeiture. Our office also reviews extensions of time for the filing of proofs of completion and proofs of beneficial use. Specific to A.B. 209, you can see the language of subsection 2 states: "... the State Engineer may, upon the request of the holder ... extend the time necessary to work a forfeiture ... ." It then lists the items we take into consideration, beginning with subsection 2(a): "Whether the holder has shown good cause for the holder's failure to use all or any part of the water beneficially for the purpose ... ." That relates to good cause, which is open-ended. Subsection 2(b) considers: "The unavailability of water to put to a beneficial use which is beyond the control of the holder." And, subsection 2(c) considers: "Any economic conditions or natural disasters which made the holder unable to put the water to that use." You can see in subsection 2(d) the language that we lined through—we basically paraphrased it to say, "Whether the water right is located in a basin, within a county that has been officially designated as being in a drought ... ." Again, that came out during the Governor's Drought Forum because we were in a very prolonged devastating drought, and we knew people were pumping their water because they were afraid they were going to lose it to forfeiture. We want to make it clear, you can make an application to extend and cite that as a reason. Subsection 2(e) provides for consideration: "Whether the holder has demonstrated efficient ways of using the water for agricultural purposes ... ." That can be going from flood irrigation to pivots. Subsections 2(g) and 2(h) are the new provisions that Assemblyman Oscarson has added to the list, which we have already discussed. They deal with those basins that are critical management areas or consistently overpumped. Those are the things our office considers when examining those extensions of time.

**Assemblywoman Cohen:**

If someone disputes your decision, would he then have the ability to appeal it to the court?

**Jason King:**

Yes, when we forfeit water rights, we are in district court.

**Chair Swank:**

This says the extensions may exceed one year. Could you give a 50-year extension?

**Jason King:**

You are correct. The bill is silent on how many years can be granted. I would tell you that we would never grant something for 50 years. In another section of statute dealing with extension time for proofs of completion and proofs of beneficial use, we do allow an extension for up to five years for municipalities. Maybe it makes sense to put a cap on them, but I can assure you we would never approve anything that long.

**Chair Swank:**

I always have to think about who is going to hold office next and ensure that we have some good guidelines.

**Assemblyman Watkins:**

If we were to institute this bill and this policy where we knew that people were conserving water and not using the appropriated amount of water, would your office have the kind of data on that to know exactly what the actual usage is on a yearly basis versus what is appropriated? If so, what is the goal of what to do with that data? Is it to get the basin back to being appropriately appropriated, or move further down the priority list?

**Jason King:**

Yes, we would have the data. I want to caveat that with data especially pertaining to these basins that are fully appropriated. We have acquired meters on those kinds of rights since the late 1990s. We have meter orders in many basins throughout the state. We are just beginning to require automated reporting. They are on the honor system, with us spot-checking, but a water right holder actually submits what they are using. We have a lot of personnel who are out in the fields conducting inventories, meter readings, and doing crop inventories. Yes, we would have the data to know whether they are truly conserving water. Linked to that, our office also has performed a study called Net Irrigation Water Requirement (NIWR). We have estimates of consumptive use of all different kinds of crops for every one of our 256 basins in the state. If we happen to be in Pahrangat Valley and we see someone irrigating 120 acres of corn, we can apply an NIWR and know just about exactly how much water they are consuming versus how much they are applying. We do have that data.

As to the second part of your question, it is probably my biggest goal as State Engineer to come up with a methodology to bring back into balance the 20 percent of our 256 basins that are severely overappropriated. I would feel very good about our job if we can come up with a way to start bringing those basins back into balance.

**Assemblyman Watkins:**

Let us use a hypothetical situation in which we institute this bill. You get applications for extensions, and you are now aware that you have forgiven for forfeiture 20 percent of the consumptive use, either through efficiencies or people are not dumping anymore, and you have 20 percent more water. Is the goal to just keep that in the groundwater to get the basin back in balance, or if there is enough conservation to move further down the list of people on the priority list who are not currently able to use any of the water rights?

**Jason King:**

I think it would be both of those answers. Again, if these basins are critical management areas, ultimately, we need to get them back in balance. What that groundwater management plan might look like to bring it back into balance—the sky is the limit on ideas. Some of it might be; everybody is going to become efficient and everybody is willing to leave whatever that efficiency amount is in the ground and not be able to pursue putting it back into use. That is one example of a component of a groundwater management plan.

**Assemblyman Ellison:**

For clarification, you said that you could actually extend a permit out five years, is that correct?

**Jason King:**

When we first approve an application and it becomes a permit, at that point in time, we assign a date to when that permittee has to file a proof of completion and a proof of beneficial use. We can treat municipalities differently. We can allow municipalities up to ten years to file their proof of beneficial use. Everyone else gets a maximum of five years. That is one place where, even at permitting time, we allow municipalities a longer time to put the water to beneficial use. After the permit has been issued and those time frames have run, if someone files for an extension of time, again, with municipalities, we can approve a single extension of time of five years to prove up on their beneficial use. Everyone else gets one year at a time.

**Chair Swank:**

I will now move to testimony in support of A.B. 209.

**Jason King:**

We have had much discussion already, but A.B. 209 is a result of discussions during the Governor's Drought Forum about the dynamic between the requirement to beneficially use one's water or face the possibility of losing it to forfeiture for nonuse, and the need to reduce groundwater pumping in overappropriated and overpumped basins or those basins designated as critical management areas.

As amended, the bill provides for consideration of additional factors under a request for extension of time to prevent the working of a forfeiture of a water right for nonuse. These additional factors include whether the basin is officially designated as being in a drought, whether the water right holder is conserving water in a manner that has reduced their actual consumption, whether the groundwater basin has been designated as a critical management area, or whether it is a basin that is consistently overpumped.

The bill also provides that our office may grant extensions of time to prevent the working of a forfeiture that exceeds the usual one-year limitation in groundwater basins that are consistently overpumped or designated as a critical management area. I note for the record that the fee will have to be paid commensurate with the number of years requested or approved under the request for extension of time. Based on that, our office is happy to support A.B. 209 with the amendment proposed by Assemblyman Oscarson.

**Kyle Davis, representing Nevada Conservation League:**

We are in support of this bill today. You have heard many of the reasons. I think this bill, with the amendment, strikes the appropriate balance between trying to get rid of the disincentive for water conservation while still guarding against water nonuser speculation. We urge your support.

**Steve K. Walker, representing Eureka County:**

Eureka County supports the bill as amended in the overpumped and critical management area designated basins. Eureka County has the only critical management area designated basin in the state. This bill would reduce the uncertainty about what may happen to a water right in a critical management area while you are developing a groundwater management plan that can go on for ten years. In my observation, the bill will help us move past farming and Nevada water law, to where we are actually managing the water resource.

**Don Alt, County Commissioner, Lyon County Board of Commissioners:**

One thing that has not been mentioned is livestock water. Most of the livestock water is on United States Forest Service or Bureau of Land Management land on range allotments. If you have a fire on your range, it is automatically two years without grazing. More often than not, at the end of two years, they will plant an area, then say you cannot graze for two more years. Then they will plant another area. It is a way of putting ranchers out of business because there is an abundance of horses and there is no place to keep them. There are a lot of areas in the state where they just do not allow grazing. It will have to wait until the next administration comes in. Then the regulations will be freed up again. I see that as a real problem with the livestock water rights. In basin 102, which is way overallocated, I think there are only six livestock water rights wells there. I know that three of them have not been used for about seven years. It is due to bad federal regulations. One rancher is being forced to pump water for the horses, and he cannot run his cows.

**Chair Swank:**

Is there anyone else in support of A.B. 209? Seeing no one, is there anyone in opposition?

**Kenny Bent, Private Citizen, Las Vegas, Nevada:**

I like any idea moving toward efficiency or conservation with water. However, I disagree with the need for this bill. From a historical point of view, beneficial use is not the cornerstone of Nevada water law, it is the foundation. It was put in place to create western settlement and economic development. The "use it or lose it" doctrine is a misnomer. It is actually use it beneficially or get out of the way and let the next person create the economic development. It was set up that way to keep speculation out of water rights. As some of you know, some basins have extreme speculative value, in fact they are worth more than some of the ranches that are in them, which leads to a completely different situation.

As far as needing the word "drought" in the bill, in times of drought, we have over 100 years of water law that has gotten by just fine, and through many cycles of drought using the term "time of water shortage." My concern with this bill is that this is exactly what creates overappropriation. Overappropriation is basically a bunch of paper water rights for which there is no water. They have a distinct value where owners are given these extensions of time and have no fear of losing them. They keep having a value based on some time in the future, not for the actual water, because it is not really there. The State Engineer also already has discretionary power to grant any number of extensions for good cause or economic conditions, and anticipated natural conditions, which is what I believe a drought is. I think in the attempt to get efficiency, and I appreciate Mr. King's remarks in trying to achieve that

and differentiate between an over-appropriated basin and one that is not completely appropriated, there is a difference. The incentive, I believe, with the amount of speculation that is built into these water rights, is for the farmer who was using 1,000 acre-feet and he reduces himself to 600 acre-feet, is that now he has another 100 acre-feet. I am just saying there is a new designation of severely over-appropriated basins that is coming in and this is where the attempt is to put meters on domestic wells and reduce their allocations. It is this severely over-appropriated situation that I believe caused this bill. [Also provided written testimony, ([Exhibit G](#)).]

**Cindy Lake, Private Citizen, Las Vegas, Nevada:**

I am here to voice my opposition to A.B. 209. I am concerned about the slippery slope. It sounds like it is really vague, and, also, nobody's water rights or private property rights in general should be at the discretion of any state employee. I am a Clark County and Nye County property owner.

**Chair Swank:**

Is there anyone else here to testify in opposition? Seeing no one, I will go to neutral.

**Omar Saucedo, representing Southern Nevada Water Authority:**

First, I want to thank Assemblyman Oscarson for his hard work during the interim and for meeting with us regarding this bill. As one of the stakeholders and participants of the interim Legislative Commission's Subcommittee to Study Water, we are keenly aware of the origin and the genesis of this bill, which is to authorize the State Engineer to suspend cancellation and forfeiture of water rights during times of drought in overappropriated basins or basins designated as critical management areas.

Speaking to the proposed amendment, we believe the language changes to subsection 2(d), referring to a basin "officially designated as in being in drought" and subsection 2(g), referring to conservation efforts are positive substantive changes. We understand and are receptive to the concept of relaxing time frames to prove beneficial use in the time of drought. However, we are concerned it is not the appropriate policy to prevent forfeiture of unused water in an overappropriated basin in times of nondrought.

The Southern Nevada Water Authority appreciates the amendment, but still has some concerns with the bill. Currently, there are three bills relating to critical management areas, and we would appreciate the opportunity to continue to work with the sponsor to ensure consistency on the proposed legislation to help overappropriated basins and critical management areas get back into balance.

For those reasons, we are neutral on the bill.

**David Rigdon, representing Taggart & Taggart, Ltd.:**

Our law firm represents water users throughout the state, everything from mining to ranching to municipalities who use water. We are neutral on the bill, we do, however, applaud

Assemblyman Oscarson's efforts to bring forward a bill to promote conservation. We are 100 percent behind the goal of promoting conservation.

We are here to ask for an amendment to the bill. As long as we are opening up NRS 534.090, there are provisions in this section regarding notice that is provided to people before their water rights are forfeited. This notice is important because it is the notice you get to inform you that you have to apply for the extension that the bill sponsors are talking about. Right now, the strict reading of the language in NRS 534.090 is that if you have not used your water for at least four consecutive years, but less than five consecutive years, the State Engineer has to send you a notice.

I have provided a letter that describes the history of Assembly Bill 435 of the 68th Session that put this language into statute ([Exhibit H](#)). We do not believe the way the language is currently written and is being interpreted by the State Engineer reflects the intent of the drafters in 1995. It was put in there in response to a Supreme Court decision that came out when the State Engineer tried to forfeit some water rights that were owned by the town of Eureka. In that Supreme Court decision, they overturned the State Engineer and reinstated the water rights, but they also asked the Legislature to put some language in the law regarding notice provisions. One of the specific purposes for that was they said it should be readily determinable from the record what the status of a water right is. That is the perspective I want to give you as an attorney who practices in this area.

We often are called upon to help facilitate transactions in water rights. We represent municipalities when people want to dedicate water rights to municipalities. In water right transactions, it truly is a "buyer beware" situation in Nevada. There are no title companies to ensure the title to water rights; it is up to the buyer to do their due diligence and to determine the status of the water right they are buying. If there is not a letter in the record saying this water right has not been used for four years and is subject to potential forfeiture, we have no way to advise our client on the status of that water right. That is the importance of the four-year letter.

Recently, the State Engineer has determined that he does not have to provide that notification if it has been longer than four years. If he never provided the four-year letter and now it is five years, he does not have to provide that notification and the opportunity to cure, based upon the strict reading of the language. We are asking that the language of "but less than five consecutive years" be stricken from the NRS 534.090 notification provision.

**Chair Swank:**

I would encourage you to speak with the bill's sponsor.

**Doug Busselman, Executive Vice President, Nevada Farm Bureau Federation:**

We are here to support the bill as written. We did not know for sure the context of opposition in relation to the preceding speaker and his proposed amendment. We also have very strong policy that says we ask for a one-year notification prior to any forfeiture. That is what this proposed amendment would do, which we support. We would like to get that on the record, indicating that we believe that there is a notice issue that needs to be addressed somewhere in the law, whether in this bill or in others.

**Chair Swank:**

Would anyone else like to testify in neutral? [There was no one.] Assemblyman Oscarson, do you have closing remarks?

**Assemblyman Oscarson:**

Thank you for the Committee's indulgence in a water law bill that we are very interested in. What I was most impressed with was that I was a farmer with 1,000 acre-feet of water, I went down to 600 acre-feet, then I forfeited all my water, all in five minutes. My grandfather, who was a farmer, probably would not respect me very much right now. I am grateful for the people who testified, and certainly want to work with everyone to ensure this is a good, clean bill. It is always an education when you hear anything about water when there are experts in the room. I always appreciate that knowledge and the water law that came long before me.

**Chair Swank:**

Thank you, it is good to see that you are not "all wet." [Written testimony was also provided in support of A.B. 209 ([Exhibit I](#)).] With that, I will close the hearing on A.B. 209. We will now hear public comment. Is there anyone who wishes to give public comment? Seeing none, we are adjourned [at 3:04 p.m.].

RESPECTFULLY SUBMITTED:

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Nancy Davis  
Committee Secretary

APPROVED BY:

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Assemblywoman Heidi Swank, Chair

DATE: \_\_\_\_\_

## EXHIBITS

[Exhibit A](#) is the Agenda.

[Exhibit B](#) is the Attendance Roster.

[Exhibit C](#) is a proposed amendment to [Assembly Bill 138](#) by the Southern Nevada Water Authority, presented by Omar Saucedo, representing Southern Nevada Water Authority.

[Exhibit D](#) is a letter in support of [Assembly Bill 138](#) submitted by Kenny Bent, Private Citizen, Las Vegas, Nevada.

[Exhibit E](#) is a letter in support of [Assembly Bill 138](#) from the Toiyabe Chapter of the Sierra Club, provided by Ann Brauer.

[Exhibit F](#) is a proposed amendment to [Assembly Bill 209](#) presented by Assemblyman James Oscarson, Assembly District No. 36.

[Exhibit G](#) is a letter in opposition to [Assembly Bill 209](#), provided by Kenny Bent, Private Citizen, Las Vegas, Nevada.

[Exhibit H](#) is a letter in neutral to [Assembly Bill 209](#), along with supporting exhibit provided by David Rigdon, representing Taggart & Taggart, Ltd.

[Exhibit I](#) is a letter in support of [Assembly Bill 209](#) from the Toiyabe Chapter of the Sierra Club, provided by Ann Brauer.